

Notice of Allowability

Application No.

10/711,507

Examiner

Thang V. Tran

Applicant(s)

HUANG, CHIA-LING

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a communication dated 11/23/07.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: claims 1-18 are allowed over the prior art of record because the prior art of record, considered alone or in combination, fails to suggest or fairly teach a method for controlling a stepping motor in an optical storage system, which comprises a pick-up head for achieving a short seek, the method comprising a combination of the following steps: calculating a number of steps that the stepping motor should rotate; and moving the pick-up head toward a target position by having the stepping motor rotate according to the number of steps; determining a shift distance between the objective lens and the center of the pick-up head; and controlling movement of the pick-up head according to the shift distance, as recited in claim 1; or a method of achieving a short seek in an optical storage system, the optical system having a stepping motor, a pick-up head, and an object lens, including a combination of step (a) through step (d) as particularly recited in claim 7, lines 4-12; or optical storage system comprising a combination of: a stepping motor electrically connected to a sled for driving the sled to move a pick-up head, wherein the stepping motor stops the sled and the pick-up head when a shift distance corresponding to a distance between the pick-up head and an objective lens is lower than a predetermined range, and a control module electrically connected to the stepping motor, the pick-up head, and the object lens for controlling operations of the stepping motor, the pick-up head, the object lens, determining the shift distance and the predetermined range, as recited in claim 13; or an optical storage system including a combination of: stepping motor, electrically connected to a sled, for driving the sled to move a pick-up head if a shift distance corresponding to a distance between the pick-up head and an

object lens is greater than a predetermined range and the object lens has not reached a target position, and stopping the sled and the pick-up head when the shift distance is lower than the predetermined range and the object lens has not reached the target position; and a control module electrically connected to the stepping motor, the pick-up head, and the object lens for calculating a number of steps that the stepping motor should rotate and controlling operations of the stepping motor, the pick-up head, the object lens and determining the shift distance and the predetermined range, as recited in claim 17; or a method for controlling a stepping motor in an optical storage system, including a combination of: calculating a number of steps that the stepping motor should rotate; moving a pick-up head toward a target position by having the stepping motor rotate according to the number of steps; moving an object lens toward a target track; comparing a shift distance corresponding to a distance between the pick-up head and the object lens with a predetermined shift range; stopping utilizing the stepping motor to move the pick-up head if the shift distance is lower than the predetermined shift range while the object lens has not reached the target track; and utilizing the stepping motor to move the pick-up head if the shift distance is greater than the predetermined shift range while the object lens has not reached the target track, as recited in claim 18. Claims 2-6, 8-12, 14-6 are allowed with their respective parent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CITED REFERENCES

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical apparatus having a sled rotated by a stepping motor to move an optical head to a target track on an optical disk, where the sled or the optical head is controlled based on calculated number of steps of the motor and/or a shifted distance of an objective lens provided in the optical head.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (571) 272-7595. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Hoa can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thang V. Tran/
Primary Examiner
Art Unit 2627